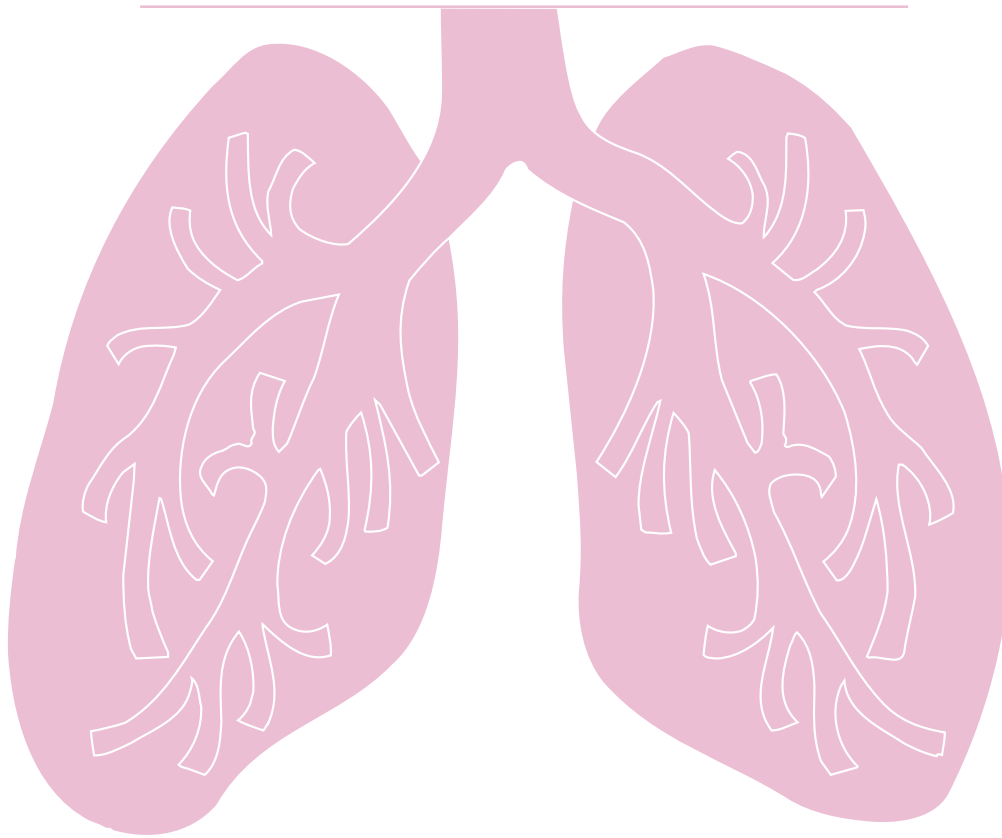


## Component 2

# Controlling Factors Contributing to Severity



# Managing the Child with Asthma:

## Component 2 – Controlling Factors Contributing to Severity

Major indoor triggers for asthma	Suggestions for reducing exposure
Viral upper respiratory infections Flu	<ul style="list-style-type: none"> <li>For the child with recurrent, severe asthma exacerbations related to viral URIs, consider limiting exposure to viral infections.</li> <li>Flu shots for children with persistent asthma (who are not allergic to eggs).</li> </ul>
Tobacco smoke, wood smoke	<ul style="list-style-type: none"> <li>Permit no smoking around the child or in the child's home.</li> <li>Help parents and caregivers stop smoking.</li> <li>Eliminate use of wood stoves and fireplaces.</li> </ul>
Dust mites	<p>Essential Actions:</p> <ul style="list-style-type: none"> <li>Encase the child's mattress and box springs in an allergen-impermeable cover.</li> <li>Cover the pillow in an allergen-impermeable case, or wash weekly in hot water.*</li> </ul> <p>Desirable Actions:</p> <ul style="list-style-type: none"> <li>Remove carpets from the bedroom, and carpets in other rooms that are laid on cement.</li> <li>Avoid sleeping or lying on upholstered furniture.</li> <li>Minimize stuffed toys in the child's bedroom.</li> <li>Reduce indoor humidity to &lt; 50%.</li> <li>Wash stuffed toys weekly in hot water.*</li> </ul>
Animal dander	<ul style="list-style-type: none"> <li>Remove the pet from the home; also remove any products made from feathers. If removal of the animal is not acceptable then: <ul style="list-style-type: none"> <li>⇒ Keep the pet out of the child's bedroom and the bedroom door closed.</li> <li>⇒ Keep the pet off upholstered furniture and carpets.</li> <li>⇒ Wash the pet weekly to decrease the amount of dander, urine, and dried saliva. (The evidence to support this recommendation has not been firmly established.)</li> </ul> </li> <li>Use a filter on air ducts in child's room.</li> </ul>
Cockroach allergens	<ul style="list-style-type: none"> <li>Do not leave food or garbage exposed.</li> <li>Reduce the indoor humidity to &lt; 50%.</li> <li>Fix leaky faucets, pipes.</li> <li>Use boric acid traps. (Avoid using poison around very young children.)</li> </ul>
Indoor mold	<ul style="list-style-type: none"> <li>Fix leaky faucets, pipes.</li> <li>Avoid vaporizers.</li> <li>Reduce indoor humidity to &lt; 50%.</li> </ul>

\*Water temperatures  $\geq 130^{\circ}$  F are necessary to kill dust mites. However, for the safety of young children, the American Academy of Pediatrics recommends maintaining water temperatures under  $120^{\circ}$  F. If possible, it is recommended to raise the water temperature when bedding is being laundered.

## **Consider allergen immunotherapy for children with asthma when:**

- There is clear evidence of a relationship between symptoms and exposure to an unavoidable allergen to which the child is sensitive.
- Symptoms occur all year or during a major portion of the year.
- There is difficulty controlling symptoms with pharmacologic management because multiple medications are required, medications are ineffective, or medications are not accepted by the child (or parents).

Referral to a specialist for consultation and/or co-management is recommended for children being considered for allergy immunotherapy.

## **Encourage parents of children who are sensitive to changes in weather and humidity, pollens, and environmental irritants (e.g., smog) to:**

- Monitor the daily local weather forecast.
- Monitor pollen count and smog index.
- Keep a relatively constant temperature and humidity in the house.
- Keep windows closed and use air conditioning when pollen, smog, and humidity levels are high.

## **Viral respiratory infections can exacerbate asthma in children.**

- Viral respiratory infection is the most common precipitant of asthma exacerbations among children 5 years of age or younger.
- Exacerbations caused by viral respiratory infections may be intermittent yet severe.

**Child care and school environments (as well as the home) should be as hypoallergenic as possible.**

## **To help parents and caregivers stop smoking, provide:**

- Educational materials.
- Information on local tobacco cessation support groups.

**Annual flu shots are recommended for children with persistent asthma (who are not allergic to eggs).**

**Diagnosing and treating upper respiratory tract disease (rhinitis, sinusitis) is an integral part of managing the child with asthma.**

## **Other factors that can influence asthma severity:**

- **Rhinitis/sinusitis**
  - ⇒ Asthma is commonly associated with perennial and seasonal rhinitis and sinusitis.
  - ⇒ Studies indicate that inflammation of the upper airway contributes to lower airway hyperresponsiveness and asthma symptoms.
  - ⇒ Treatment of upper respiratory tract symptoms is an integral part of asthma management.
- **Gastroesophageal reflux**
  - ⇒ Should be considered for any patient with asthma who complains of frequent heartburn or pyrosis, particularly those with frequent episodes of nocturnal asthma.
- **Sensitivity to aspirin, nonsteroidal anti-inflammatory medications, sulfites, beta blockers**
  - ⇒ Children who have had a reaction to aspirin or nonsteroidal anti-inflammatory medications (NSAIDs) may be at risk for severe, even fatal exacerbations.
  - ⇒ Usually safe alternatives to aspirin include acetaminophen or salsalate.
  - ⇒ Sulfites, used to preserve foods and beverages (e.g., processed potatoes, shrimp, dried fruit, beer, wine), have caused severe asthma exacerbations, particularly in patients with severe persistent asthma.
  - ⇒ Beta blockers, including those in ophthalmological preparations and those used for migraine, can cause asthma symptoms and should be avoided.

### **Other factors that can influence asthma severity in children:**

- Rhinitis/sinusitis
- Gastroesophageal reflux
- Sensitivity to aspirin, nonsteroidal anti-inflammatory medications (NSAIDs), sulfites, beta-blockers

**Appropriate treatment of these conditions may reduce the frequency or severity of asthma symptoms.**

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